



**BE SAFE, BE PURE**

**SELF-CLEANING  
DISC STACK CENTRIFUGES**

DAIRY INDUSTRY



COMPANY PROFILE

We are a new company but we boast know-how and long-standing, consolidated experience in the design, production and marketing of disc stack centrifuges for various applications and in particular for the dairy industry.

Having studied your requirements, we can develop a solution that matches your needs and allows you to get the very best performance out of your product.

SIX GOOD REASONS TO CHOOSE US



Made in Italy products



Technical know-how and many years of experience



A dynamic and innovative team, within a lean and flexible structure



Excellent separation/cleaning efficiency



Ease of maintenance



Reduction of operating costs



- Higher performance
- Decreased consumption and installed power
- Automatic discharge for maximum process hygiene and minimal product losses
- Feeding system with soft inflow to prevent damage to the product
  - Soft product inflow handling
  - Hydrodynamic design aimed at reducing turbulences
- Increased mechanical efficiency – bearing life – for a long-term operation performance
- Cartridge-type vertical shaft
- Ease of maintenance and savings in operating costs
- Safety and cleanliness of the entire process
- Ease of control and adjustments



Our range of products for this sector includes cream separators, clarifiers and bacteria clarifiers, all of them are self-cleaning.

### Warm milk skimming

The milk is separated into skimmed milk and cream.

#### Efficiency

The process usually takes place at a temperature between 48°C and 58°C, so as to guarantee excellent skimming efficiency and low viscosity of the output cream.

The skimming efficiency of our separators, expressed in terms of the percentage of fat remaining in skimmed milk, is 0.04% - 0.055% with the Röse-Gottlieb method (0.03% - 0.05% with the Gerber method).

The concentration of the cream is 25% to 45%.

Models	SKIMMING CAPACITY l/h	STANDARDIZATION CAPACITY l/h	MOTOR POWER kW
ES350D	5.000	7.500	11
ES400D	7.500	11.000	15
ES450D	10.000	15.000	18,5

Self - cleaning warm milk separators



### Milk clarification

It removes impurities from milk and reduces the level of leucocytes and bacteria.

#### Efficiency

Milk can be clarified either with a separator or with a clarifier (cleaner), but the latter provides greater efficiency.

It can be carried out using both hot and cold milk, but the best performance is achieved if the temperature is higher.

The recommended temperature is 50°C to 55°C.

MODELS	CLEANING CAPACITY l/h	MOTOR POWER kW
ES350DC	10.000	11
ES400DC	12.000	11
ES450DC	15.000	15

Self - cleaning milk clarifiers

### Milk bacteria clarification

This reduces the bacteria in milk and consequently reduces the temperature of the pasteurisation process.

It is required when high quality milk is needed, both for drinking and for the production of cheese. It allows you to obtain a safer product with even better properties and prevents any problems from arising during cheese maturation.

#### Efficiency

The bacteria clarification temperature is around 50°C to 60°C.

The efficiency (measured in terms of percentage of bacterial load abatement) depends on the product and process characteristics and is as follows:

- o 97-99% anaerobic spores
- o 85-95% aerobic spores
- o 75-95% total bacteria load

MODELS	BACTERIA CLARIFICATION CAPACITY l/h	MOTOR POWER kW
ES350DB	6.000	11
ES400DB	8.000	15
ES450DB	10.000	18,5

Self - cleaning milk bacteria clarifiers

## Whey skimming

This process separates the fat contained in the whey (present in a small percentage, between 0.15% and 0.70%).

It is simpler than the milk process, if there are low curd fines.

### Efficiency

The process temperature is generally between 35°C and 40°C.

The skimming efficiency (measurable in terms of the percentage of residual fat in the whey) is between 0.02% and 0.03%.

The percentage may also be lower if the whey is pre-clarified.

MODELS	SKIMMING CAPACITY l/h	MOTOR POWER kW
ES350D	7.500	11
ES400D	11.000	15
ES450D	15.000	18,5

### Self – cleaning whey separators

## Whey clarification

It removes curd fines from the whey, so that the subsequent skimming process is more efficient.

MODELS	CLEANING CAPACITY l/h	MOTOR POWER kW
ES350DC	10.000	11
ES400DC	12.000	11
ES450DC	15.000	15

### Self - cleaning whey clarifiers

## The best business strategy, a satisfied customer.

We firmly believe in the importance of establishing a relationship based on mutual trust with our customers.

This is why we aim to deliver a comprehensive, reliable and consistent service, to guarantee you peace of mind from the outset, during the design phase of your product and through to the processing, installation and commissioning phases, including maintenance and – if necessary – repair later on.

Our technicians will support you at any moment and at any location throughout the working life of your machine, training your personnel and providing regular and scheduled maintenance to ensure that its operation and performance levels are always optimised.



### R&D TEAM

To study your product and process demands.



### MONITORING

Dedicated software for continuous remote performance monitoring.



### SPARE PARTS

Original spare parts.



### TRAINING

Training for your technicians and operators.



### MAINTENANCE

Scheduled, periodic and preventive maintenance contracts.



### TECHNICAL SUPPORT

A team of experienced engineers will support you at any time and at any place.

## Espin srl

Via Lago di Levico, 7  
36015 Schio (VI) Italy  
Tel. +39 0445 1600247  
P.IVA IT04268250240

[espinseparators.com](http://espinseparators.com)  
[info@espinseparators.com](mailto:info@espinseparators.com)

